Claims

1. Use of inhibitors of the interaction between HIV-1 TAT protein and HIV-1 gp120 for inhibiting the entry of HIV-1 into a host cell.

2. Use of claim 1, wherein the inhibitor binds to TAT.

3. Use of claim 2, wherein the inhibitor is a peptide.

4. Use of claim 3, wherein the peptide is homologous to the gp 120 V1/V2 region.

5. Use of claim 3 or 4, wherein the pepide is selected from:
   (a) CTVECYFNCTPTC (SEQ ID No. 2)
   (b) CPDRKKKVVMVC (SEQ ID No. 3)
   (c) CSFNITTEIRDKVKK (SEQ ID No. 127)
   (d) a peptide comprising at least 5 contiguous amino acids from a peptide, selected from the group consisting of peptides (a) - (c),
   (e) a peptide which has a sequence identity of at least 80 % to the amino acid sequence of a peptide selected from the group consisting of peptides (a) - (d).

6. Use of claim 3 or 4, wherein the peptide is selected from:
   (a) RDKKKK (SEQ ID No. 40),
   (b) RDKKKQ (SEQ ID No. 41),
   (c) RDKKKV (SEQ ID No. 42),
   (d) RNKRKQ (SEQ ID No. 51),
   (e) RDKTQK (SEQ ID No. 52),
   (f) DRKKKV (SEQ ID No. 43),
   (g) KDKKEK (SEQ ID No. 45),
   (h) RDKQQK (SEQ ID No. 49),

(i) RDKVQK (SEQ ID No. 50),

(j) CSFNIT (SEQ ID No. 4),

(k) RDKVKK (SEQ ID No. 44),

(l) a peptide comprising at least 5 contiguous amino acids from a peptide selected from the group consisiting of peptides (a) -(k),

(m) a peptide which has an identity of at least 80 % to the amino acid sequence of peptide selected from the group consisting of peptides (a) - (l).

7. Use of claim 1, wherein the inhibitor binds to gf120.

8. Use of any one of claims 1 to 7, wherein the host cell is a human cell.

9. Use fo any one of claims 1 to 8 for the manufacture of a medicament for the treatment of HIV-1 infections.

10. Use of claim 9 for the treatment of infections by M-tropic and L-tropic HIV-1 strains.

11. A method for identifying and/or characterizing a compound which inhibits the entry of HIV-1 into a host cell comprising

(i) providing at least one compound to be tested and

(ii) determining if the compound is capable of inhibiting the interaction between HIV-1 TAT protein and HIV-1 gp120.

12. The method of claim 11, wherein a plurality of compounds is tested in parallel or sequential.

13. The method of claim 12, wherein a compound library is tested.

14. The method of any one of claims 11 to 13 which is a cellular-based assay.

15) The method of any one of claims 11 to 14 which is a molecular-based assay.

16. The method of any one of claims 11 to 15, wherein a compound which has been identified as an inhibitor or a compound desired therefrom is formulated as a pharmaceutical composition.

17. A pharmaceutical composition comprising as an active ingredient at least one inhibitor of the interaction between HIV-1 TAT protein and HIV-1 gp120 and optionally pharmaceutically acceptable carriers, diluents and/or adjuvants.

18. The pharmaceutical composition of claim 17, wherein the inhibitor is defined as in claims 2 to 7.

19. A peptide which is selected from:

(a) CTVECYFNCTPTC (SEQ ID No. 2)

(b) CPDRKKKVVMVC (SEQ ID No. 3)

(c) CSFNITTEIRDKVKK (SEQ ID No. 127)

(d) a peptide comprising at least 5 contiguous amino acids from a peptide, selected from the group consisting of peptides (a) - (c),

(e) a peptide which has a sequence identity of at least 80 % to the amino acid sequence of a peptide selected from the group consisting of peptides (a) - (d).

20. A peptide which is selected from:

(a) RDKKKK (SEQ ID No. 40),

(b) RDKKKQ (SEQ ID No. 41),

(c) RDKKKV (SEQ ID No. 42),

(d) RNKRKQ (SEQ ID No. 51),

(e) RDKTQK (SEQ ID No. 52),

(f) DRKKKV (SEQ ID No. 43),

(g) KDKKEK (SEQ ID No. 45),

(h) RDKQQK (SEQ ID No. 49),

(i) RDKVQK (SEQ ID No. 50),

(j) CSFNIT (SEQ ID No. 4),

(k) RDKVKK (SEQ ID No. 44),

(l) a peptide comprising at least 5 contiguous amino acids from a peptide selected from the group consisiting of peptides (a) -(k),

(m) a peptide which has an identity of at least 80 % to the amino acid sequence of peptide selected from the group consisting of peptides (a) - (l).

21. Peptide combination comprising at least two peptides with the sequences shown in SEQ ID NO. 2-127.

22. Peptide combination of claim 21, wherein at least one disulfide bridge is present.